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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/085,072

03/01/2002

Bozidar Ferck-Petric

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EXAMINER

OROPEZA, FRANCES P

ART UNIT

PAPER NUMBER

3766

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/085,072

Applicant(s)

BOZIDAR

Examiner

Frances P. Oropeza

Art Unit

3766

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/13/07 (RCE) and 2/20/07 (Amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35, 37-39 and 52-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35 and 37-39 is/are rejected.
- 7) ☒ Claim(s) 52-56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. The Applicant's submission filed on 4/13/07 has been entered.

Amendment

2. The Applicant amended independent claim 35 and added new claims 52-56, hence the rejection of record is withdrawn and a new rejection established in the subsequent paragraphs.

Claim Rejections - 35 USC § 103

3. Claims 35 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soykan et al. (US 6206914) in view of Obel (US 5199428).

Soykan et al. teach an implantable multi-chamber pacing system with drug treatment that monitors ECG signals and coronary sinus blood flow signals to detect and treat ischemia (fig. 5; col. 1 @ 23-39; col. 2 @ 30-40; col. 3 @ 23-30; col. 5 @ 21-36; col. 13 @ 46-64; col. 16 @ 23-46).

Soykan et al. teach incorporating the stimulation device of US 5702427 to Ecker et al. (col. 16 @ 53-58), hence including in the instant invention atrial and ventricular sensing means and signals (fig. 9 – Ecker et al.) and pacemaker and defibrillator type IPGs (implantable pulse generators) (col. 6 @ 21-27).

The Soykan et al. system includes sensing elements (leads) coupled to the cardiac rhythm management device to detect changes in the physiological properties (the properties read as the level of blood flow (blood flow velocity), the atrial signals, and the ventricular signals), the detected changes serving to trigger release of the therapeutic agent (col. 3 @ 14-30; col. 4 @ 66 – col. 5 @ 4; col. 5 @ 21-36). One disclosed embodiment is a lead located in the conorary sinus, upstream of the coronary arteries, to provide local feedback to the device to control local delivery of the drug treatment (col. 4 @ 66 – col. 5 @ 4; col. 5 @ 48-52; col. 8 @ 45-55; col. 16 @ 42-46). This lead contains a means for producing a signal representative of flood flow velocity, an acoustic Doppler sensor (col. 16 @ 42-53).

As to claim 35, Soykan et al. teach using one or more sensors to monitor the cardiac condition of a patient including the monitoring of blood flow velocity through the coronary sinus, and monitoring an increase in the elevation of the ST segment of cardiac waveform. Since the natural physiological sequence in an ischemic cardiac condition is known to be a decrease coronary sinus blood flow prior to an elevated ST segment, it is inherent the decreased blood flow velocity signal would precede the ST element elevation signal when using and analyzing signals from a flow meter and an EKG sensor, the monitoring signals creating an output signal to provide appropriate therapy for the ischemic condition of the patient (col. 1 @ 28-39; col. 2 @ 54 – col. 3 @ 5; col. 3 @ 35-30; col. 5 @ 21-36; col. 13 @ 47-64; col. 16 @ 23-61)

As to claim 38, the telemetry system used in the instant invention, a Medtronic Model 9790 programmer (specification – page 5, line 25), is the same programmer used in the Soykan et al. reference (col. 15 @ 18), hence Soyken et al. teach “remotely programming the signal processing means via a wireless telemetry link”.

As discussed in the previous 5 paragraphs of this action, Soykan et al. disclose the claimed invention except for sensing the signals of both ventricles and delivering pacing pulses by way of the coronary sinus lead.

Obel et al. teaches cardiac system monitoring and treatment using a coronary sinus lead and a lead for the right atria and ventricle for the purpose of effectively monitoring the cardiac activity of both ventricles and providing appropriate pacing treatment to the heart in response to ST segment variation. It would have been obvious to one having ordinary skill in the art at the time of the invention to have used leads to sense the cardiac activity of both ventricles and provide pacing therapy by way of the coronary sinus lead in the Soykan et al. system in order to accurately and effectively respond to potential myocardial ischemia (abstract; col. 5 @ 29-37)

Allowable Subject Matter

4. Claims 52-56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Statutory Basis

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fran Oropeza whose telephone number is (571) 272-4953. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes can be reached on (571) 272-4955. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frances P. Oropeza
Patent Examiner
Art Unit 3766

FPO
6-25-07

Kristen D. Mullen
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